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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/442,627	11/17/1999	BRETT D. RIGGS	PACACC.001A	6181

7590 08/08/2003

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ART UNIT	PAPER NUMBER
2697	9

DATE MAILED: 08/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/442,627	RIGGS, BRETT D.	
	Examiner	Art Unit	
	Andrew Graham	2697	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-17 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. **Claims 1 and 2** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (USPN 5339362) in view of Kirson et al (USPN 6114970). Hereafter, "Kirson et al" will simply be referred to as "Kirson".

Harris discloses a modular automotive system that includes a controller interface that is able to connect, detect, and automatically control various audio and other electronic signal processing components. Specifically regarding **Claim 1**, Harris discloses an automotive audio system that comprises a motherboard (65) for connecting various signal-processing modules, where the communication between these modules and the other parts of the system is coordinated by a controller module (col. 4, lines 26-44 and col. 10, lines 49-60). This reads on "a stereo control interface device". A remote data access terminal (RDAT) (16) is disclosed, which is used

to input manual controls for each combination of signal processing and amplifier cards connected to the interface (col. 17, lines 60-67 and col. 18, lines 1-20). This reads on "at least one local vehicle stereo control device" which is "installed in a vehicle to control an originally installed stereo receiver and produces output signals". Among the various types of signal processors that may be connected to the interface, Harris teaches that one of the possible modules is an FM tuner/CD changer (col. 13, lines 15-23). One of the specific advantages of this system as disclosed by Harris is the ability to easily upgrade individual modules (col. 2, lines 19-22). The system also dedicates six input slots for connecting various combinations of signal-processing cards to the system (col. 4, lines 35-43 and Figure 5). These two factors inherently mean that one radio card may replace or be added to another, previously installed radio tuner card, in either the same or neighboring interface ports. This interchangeability reads on "a replacement stereo receiver installed in the vehicle to replace the originally installed stereo receiver" and using the control device to "to control the operation of the replacement stereo receiver via the stereo control device".

Harris does not specify:

- that the stereo control device is the control device originally installed in the vehicle

Kirson discloses a method for uniquely addressing after-market and secondary electronic devices added to the communications architecture of a vehicle. The original equipment manufacturer (OEM)

equipment includes steering wheel controls (16), and in-dash display (18), a door lock system (20), and other vehicle systems (24) (col. 3, lines 1-3). The gateway (26) enables signals originating from devices on the OEM bus (12) to be communicated to devices additional electronic devices on the ITS bus (14) and signals originating from the ITS bus (14) to be received on the OEM bus (12) (col. 3, lines 5-26). This connection of the original controls to peripheral devices reads on "at least one local vehicle stereo control device originally installed in the vehicle" and "so that the at least one local vehicle stereo control device originally installed in the vehicle can be used to control the operation of the replacement stereo receiver via the stereo device".

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to incorporate the gateway and bus system of Kirson into the modular audio and auxiliary equipment system of Harris. The motivation behind such a modification would have been that the bus interface system of Kirson would have enabled the use of the original manufacturer's controls - as is taught by Kirson - for the audio system of Harris, while also expanding the range of devices that can be connected to the in-vehicle communications network. The teachings of Kirson also disclose a manner for uniquely identifying and addressing added peripherals that is not dependant upon the physical location of the added devices in the system. While the controls for the audio system of Harris are not implicitly or explicitly "originally installed" in a corresponding vehicle, Kirson

provides explicit detail of a method for incorporating secondary electronic devices into the control and operation of original input and output devices of a vehicle.

Regarding **Claim 2**, Harris discloses that the input control device, the RDAT (16), can be selectively mounted in the vehicle, and that the same device is used to control each of the audio system configurations (col. 3, lines 9-33). One of the manners in which the RDAT can be mounted in the vehicle is disclosed as in the conventional location on the dashboard next to the steering wheel. Kirson explicitly illustrates controls located on the central portion of the steering wheel of a vehicle (Figure 2). These teachings read on "at least one switch located adjacent the steering wheel of the vehicle that is originally electrically connected to a factory installed stereo of the vehicle".

2. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Harris in view of Kirson, as applied to claims 1 and 2 above, and in further view of the applicant's own admitted prior art.

As detailed above, Harris teaches a modular audio system for vehicles that allows various audio and amplifier components to be combined in and controlled by the same stereo interface. In this system, the same controller is used to manage the communication between each of the various components of the various possible configurations of the system (col. 3, lines 9-33 and col. 17, lines 60-67 and col. 18, lines 1-19). Harris also repeatedly specifies that

the controller may be mounted in the same location as conventional radio controls (col. 3, lines 20-22 and col. 17, line 67, and col. 18, lines 1-2). Kirson discloses a method for uniquely addressing after-market and secondary electronic devices added to the communications architecture of a vehicle.

Harris in view of Kirson though does not specify:

- that the standard radio controls of a vehicle are those of a motorcycle
- that the motorcycle controls are arranged with at least one switch located adjacent the handlebars of the motorcycle

In regards to previously known art, the applicant discloses that high-end motorcycles typically include expensive stereo systems, and such systems are often equipped with local stereo controls positioned on the handlebars (page 7, lines 20-26). This type of motorcycle audio control arrangement is specifically described as "commonly known" (page 7, line 21). This reads on "a motorcycle and the at least one local vehicle stereo control device comprises at least one switch located adjacent the handlebars of the motorcycle".

Within the concept taught by Harris in view of Kirson, it would have been obvious to modify the system of Harris in view of Kirson by including it on a motorcycle such as that described by the applicant as previously known in the art. The motivation behind such a modification would have been the modularity and ability to upgrade the

audio components, the ease of interchanging such components, and the continued use of the same controls.

3. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Harris in view of Kirson as applied to claims 1 and 2 above, and further in view of Haubner (USPN 5559499).

As detailed above, Harris teaches a modular audio system for vehicles that allows various audio and amplifier components to be combined in and controlled by the same stereo interface. Harris also discloses a local vehicle stereo control device (16) that, in one embodiment, is hardwired to the controller housing (12) through a conventional RJ-11 type jack (62). This reads on "the stereo control interface device is adapted to be electrically coupled to the at least one local vehicle stereo control device". Harris also discloses that signals are passed between the interface and the signal processor cards by inserting them into the housing without connecting or using any additional wiring (col. 4, lines 40-43). Kirson discloses a method for uniquely addressing after-market and secondary electronic devices added to the communications architecture of a vehicle.

Yet, Harris in view of Kirson does not disclose:

- that the interface is adapted to send a wireless control signal to the signal processor cards

Haubner discloses an infrared transmission system that reliably sends and receives information, and also emits visible indications

concerning the status of the wireless connection (col. 2, lines 7-16 and col. 3, lines 24-67 and col. 4, lines 1-33). One area of application is specifically listed as stereo systems (col. 2, lines 11-16). Such a means of communication reads on "adapted to produce a wireless signal" and the passing of information in the signal reads on "corresponding to the signal received from the at least one local vehicle stereo control device".

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Harris in view of Kirson by using the wireless communication system taught by Haubner to connect the control interface with the signal processing cards. Several motivations would have existed for such a modification; Such an arrangement would have required no physical connection between the interface and the processing cards, more flexibility would have then been permitted in terms of the physical design and layout of the controller housing, and the special features of the system of Haubner would have provided a user with information confirming a valid connection between the interface and signal-processing cards.

4. **Claims 5-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris in view of Kirson and Haubner as applied to claim 4 above, and further in view of the applicant's admitted prior art and further in view of Kadnier (USPN 5559499).

As detailed above, Harris teaches a modular audio system for vehicles that allows various audio and amplifier components to be

combined in and controlled by the same stereo interface. Kirson discloses a method for uniquely addressing after-market and secondary electronic devices added to the communications architecture of a vehicle. Haubner discloses a method and device for wirelessly sharing information and providing indications concerning the strength of the connection.

Harris teaches that one of the types of signal-processing cards that may be employed in his interface is an FM Tuner/CD Controller module (col. 13, lines 15-31).

Yet, Harris in view of Kirson and Haubner do not disclose:

- that these receivers are adapted to receive wireless signals from a handheld remote control

In establishing the advantages of the system of the current application over those found in prior art, the applicant discloses the related features of the other systems previously known in the art. In the description for the prior known radio control system, the specification discloses that the typical after-market receiver is equipped with a wireless receiver and a corresponding infrared remote control (page 6, lines 25-27). These remote controls are also disclosed as often being able to adjust various aspects of the stereo's operation, including the channel and volume settings (page 6, lines 27-28). This reads on "the replacement stereo receiver is adapted to receive a first wireless signal from a handheld remote control upon a user depressing a first function key on the handheld

remote control to change a first function of the operation of the replacement stereo receiver".

To one of ordinary skill in the art, it would have been obvious at the time the invention was made to integrate a receiver with a remote control as disclosed by applicant into the system of Harris in view of Kirson and Haubner. The motivation behind such an inclusion and modification would have been the improved manner in which the receiver would have been controlled; not only would a remote control have provided another, separate physical means for controlling the receiver, but it also would have provided a means that would have not needed to be physically connected to the audio system.

Harris in view of Kirson and Haubner and further in view of applicant's admitted prior art do not specify:

- that the stereo control interface can receive these wireless transmissions as well
- that the stereo control interface outputs a signal to the receiver corresponding to the received control signal from the remote control

Kadnier discloses a universal remote control receiver that can be programmed to selectively recognize and respond to a variety of input control signals from various input remote controls (col. 3, lines 34-45). Illustrated in Figures 5A-5C, the system of Kadnier first instructs a user to input a command key to be assigned a function (204-210), and then, in a later step (234), the user is instructed to

assign a command to be execute upon receipt of the input control command (col. 9, lines 19-59 and col. 12, lines 25-32). Kadnier discloses that the system is particularly intended to operate in response to signals sent by infrared remote controllers (col. 4, lines 4-12). This reads on "produces a signal corresponding to the first wireless signal in response to a driver activating a first local vehicle stereo control device".

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to include a universal receiver as taught by Kadnier in the modular audio system as disclosed by Harris in view of Kirson and Haubner and admitted prior art. Such a modification would have been desirable because the system of Harris includes the option of having a plurality of tuner cards installed in it, and the universal receiver would have enabled each of the remotes associated with these tuner cards to completely control the audio system. The programmable aspect of the receiver taught by Kadnier would have also enhanced the extent of control available to each of these individual remote controls.

Regarding **Claim 6**, Harris discloses that the software of the RDAT (16), the local input control device, is flexible and permits the programming of macros to run a selected set of operations in response to a preset input (col. 13, lines 5-11). This reads on "the stereo interface control device includes a memory and is programmable such that a programmer can sequentially store wireless signals

corresponding to the at least one local vehicle stereo control devices".

Regarding **Claim 7**, Figures 5A-5C of Kadnier disclose the process by which a user may program the receiver to selectively associate a set of output signals with an input signal (col. 9, lines 19-67, col. 10, lines 1-67, col. 11, lines 1-67, and col. 12, lines 1-62). This reads on "the stereo control interface device includes a program mode wherein the stereo control interface device can be programmed by a programmer activating a first local vehicle stereo control device and the first function key on the handheld remote control".

Regarding **Claim 8**, the universal remote receiver of Kadnier includes an infrared receiver for receiving a plurality of infrared input signals (col. 4, lines 4-12). This reads on "a wireless receiver" and "receive the first wireless signal from the handheld remote control". As discussed in reference to Claim 7, the programmability feature of the RDAT (16) of Harris includes the capability of writing and inherently storing macros, which reads on "store a corresponding signal in the memory such that the stereo control interface device can recall the stored signal and thereby generate a wireless signal corresponding to the first wireless signal" (col. 13, lines 5-11). As discussed in reference to Claim 4, Haubner discloses a method of an infrared transmission of data that includes both an infrared transmitter and receiver, which reads on "a wireless transmitter" and "generate a wireless signal" (col. 2, lines 8-64).

5. **Claims 9-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris in view of Kirson as applied to claims 1 and 2 above, and further in view of the applicant's admitted prior art and further in view of Kadnier.

As detailed above, Harris discloses a modular automotive system that includes a controller interface that is able to connect, detect, and automatically control various audio and other electronic signal processing components. Specifically regarding **Claim 9**, Harris discloses an automotive audio system that comprises a motherboard (65) for connecting various signal-processing modules, where the communication between these modules and the other parts of the system is coordinated by a controller module (col. 4, lines 26-44 and col. 10, lines 49-60). This reads on "a stereo system" and "an interface device that is adapted to be positioned within the vehicle to as to be able to receive the local control signals". A remote data access terminal (RDAT) (16) is disclosed, which is used to control each combination of signal processing and amplifier cards connected to the interface (col. 17, lines 60-67 and col. 18, lines 1-20). One of two methods of connecting the RDAT to the controller interface is detailed as being mounted on the dashboard in the traditional radio location next to the steering wheel (col. 3, lines 20-22). This reads on a control device "mounted in a first location on the vehicle that is adapted to send local control signals to an original stereo receiver". Among the various types of signal processors that may be connected to the interface, Harris teaches that one of the possible types of

modules is an FM tuner/CD changer (col. 13, lines 15-23). One of the specific advantages of this system as disclosed by Harris is the ability to easily upgrade individual modules (col. 2, lines 19-22). The system also dedicates six input slots for connecting various combinations of signal-processing cards to the system (col. 4, lines 35-43 and Figure 5). These two factors inherently mean that one radio card may replace or be added to another, previously installed radio tuner card, in either the same or neighboring interface ports. This interchangeability reads on "a replacement stereo receiver adapted to replace an original stereo receiver, wherein the replacement stereo is mounted in a second location on the vehicle".

The original equipment manufacturer (OEM) equipment in the system of Kirson includes steering wheel controls (16), and in-dash display (18), a door lock system (20), and other vehicle systems (24) (col. 3, lines 1-3). The gateway (26) enables signals originating from devices on the OEM bus (12) to be communicated to devices additional electronic devices on the ITS bus (14) and signals originating from the ITS bus (14) to be received on the OEM bust (12) (col. 3, lines 5-26). This connection of the original controls to the peripheral devices reads on "at least one local vehicle stereo control device originally mounted in a first location" used to "control the operation of the original stereo receiver". In combination, this also reads on the interface receiving signals "from the at least one originally mounted stereo control device". In combination, the Kirson teachings and the interface of Harris read on the ability to "control the

operation of the replacement stereo receiver such that the at least one originally mounted local stereo control device can be used to control the replacement stereo receiver via the interface device".

Yet, Harris in view of Kirson does not disclose:

- that the replacement stereo receiver is adapted to receive remote control signals

In establishing the advantages of the system of the current application over prior systems, the applicant discloses the related features of other audio electronics previously known in the art. In the description for the prior known radio control systems, the specification discloses that the typical after-market receiver is equipped with a wireless receiver and a corresponding infrared remote control (page 6, lines 25-27). These remote controls are also disclosed as often being able to adjust various aspects of the stereo's operation, including the channel and volume settings (page 6, lines 27-28). This reads on "the replacement stereo receiver is adapted to receive remote control signals to control the operation of the replacement stereo receiver".

To one of ordinary skill in the art, it would have been obvious at the time the invention was made to include a receiver with a remote control in the system of Harris in view of Kirson as disclosed by applicant's admitted prior art. The motivation behind such an inclusion and modification would have been the improved manner in which the receiver would have been controlled; not only would a remote control have provided another, separate physical means for controlling

the receiver, but this additional means would have not required a physical connection to the audio system.

Yet, Harris in view of Kirson and applicant's admitted prior art does not specify:

- that the interface is able to send output control signals corresponding to the remote control signals

Kadnier discloses a universal remote control receiver that can be programmed to selectively recognize and respond to a variety of input control signals from various input remote controllers (col. 3, lines 34-45). Illustrated in Figures 5A-5C, the system of Kadnier first instructs a user to input a command key to be assigned a function (204-210), and then, in a later step (234), the user is instructed to assign a command to be executed upon receipt of the input control command (col. 9, lines 19-59 and col. 12, lines 25-32). Kadnier discloses that the system is particularly intended to operate in response to signals sent by infrared remote controllers (col. 4, lines 4-12). This reads on "send output control signals corresponding to the remote control signals so as to control the operation of the replacement stereo receiver".

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to include a universal receiver as taught by Kadnier in the modular audio system as disclosed by Harris in view of Kirson and applicant's admitted prior art. Such a

modification would have been desirable because the system of Harris includes the option of having a plurality of tuner cards installed in it, and the universal receiver would have enabled each of the remotes associated with these tuner cards to completely control the audio system. The programmable aspect of the receiver taught by Kadnier would have also enhanced the extent of control available to each of these individual remote controls.

Regarding **Claim 10**, Harris discloses that the input control device, the RDAT (16), can be selectively mounted in the vehicle, and that the same device is used to control each of the audio system configurations (col. 3, lines 9-33). One of the manners in which the RDAT can be mounted in the vehicle is disclosed as in the conventional location on the dashboard next to the steering wheel. Kirson explicitly illustrates controls located on the central portion of the steering wheel of a vehicle (Figure 2). These teachings read on "at least one switch located adjacent the steering wheel of the vehicle that is originally electrically connected to an originally installed stereo receiver of the vehicle".

Regarding **Claim 11**, In regards to previously known art, the applicant discloses that high-end motorcycles typically include expensive stereo systems, and such systems are often equipped with local stereo controls positioned on the handlebars (page 7, lines 20-26). This type of motorcycle audio control arrangement is specifically described as "commonly known" (page 7, line 21). This reads on "a motorcycle and the at least one local vehicle stereo

control device comprises at least one switch located adjacent the handlebars of the motorcycle".

Regarding **Claim 12**, please refer to the like teachings of Claim 9, particularly the modifications that would have been obvious in view of applicant's admitted prior art and noting that Kadnier teaches that infrared is the main type of signal used in remote control devices (col. 2, lines 66-67).

6. **Claims 13-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris in view of Kirson, applicant's admitted prior art, and Kadnier as applied to claims 9-12 above, and further in view of Haubner.

As detailed above, Harris teaches a modular audio system for vehicles that allows various audio and amplifier components to be combined in and controlled by the same stereo interface. Kirson discloses a method for uniquely addressing after-market and secondary electronic devices added to the communications architecture of a vehicle. The applicant's admitted prior art discloses that stereo receivers with infrared remote controls were commonly known in the field at the time of the invention. Kadnier teaches a universal receiver that would have enabled the audio system to receive input signals from any type of infrared remote control and assign a specific output function to said inputs.

Harris also discloses a local vehicle stereo control device (16) that, in one embodiment, is hardwired to the controller housing (12)

through a conventional RJ-11 type jack (62). This reads on "device is adapted to be electrically coupled to the at least one local stereo control device". Harris also discloses that signals are passed between the interface and the signal processor cards by inserting them into the housing without connecting or using any additional wiring (col. 4, lines 40-43).

As modified in regards to Claim 9, the universal receiver abilities of the device of Kadnier enable the system to receive input control signals from a remote control device, which enables the modified system to "output control signals to the replacement stereo receiver corresponding to the remote control signals".

Yet, Harris in view of Kirson and applicant's admitted prior art and Kadnier does not specify:

- that the interface is adapted to transmit and receive wireless control signals to/from the signal processor cards

Haubner discloses an infrared transmission system that reliably sends and receives information, and also emits visible indications concerning the status of the wireless connection (col. 2, lines 7-16 and col. 3, lines 24-67 and col. 4, lines 1-33). One area of application is specifically listed as stereo systems (col. 2, lines 11-16). Such a means of communication reads on "adapted to receive and produce, in response to receiving the local control signals from

the at least one local stereo control device, wireless output control signals to the replacement stereo receiver".

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Harris in view of Kirson, the applicant's admitted prior art, and Kadnier by using the wireless communication devices taught by Haubner to connect the control interface with the modular signal processing cards. Several motivations would have existed for such a modification; Such an arrangement would have required no physical connection between the interface and the processing cards, more flexibility would have then been permitted in terms of the physical design and layout of the controller housing, and the special features of the system of Haubner would have provided a user with information confirming an acceptable connection between the interface and signal-processing cards.

Regarding **Claim 14**, Harris discloses that the software of the RDAT (16), the local input control device, is flexible and permits the programming of macros to run a selected set of operations in response to a preset input (col. 13, lines 5-11). This reads on "the interface device can be programmed to produce a first wireless output control signal in response to receiving a first local control signal from the at least one local stereo control device".

Regarding **Claim 15**, please refer to the like teachings of Claim 9, particularly the modifications made in view of the teachings of Kadnier.

Regarding **Claim 16**, the method of infrared communication taught by Haubner includes the use of a transmitting diode (11) to output a control signal to the component (12) that receives the information (col. 2, lines 8-44). This reads on "a wireless transmitter that is capable of transmitting the wireless output control signals".

Regarding **Claim 17**, the universal receiver of Kadnier and the transmitter and receiver of Haubner each transmit and receive infrared communications (Kadnier - (col. 4, lines 4-12) Haubner - (col. 2, lines 8-16). This reads on "the wireless transmitter and the wireless receiver comprises an infrared transmitter and receiver".

Response to Amendment

The amendments filed on June 2, 2003 in regards to Claims 12-13 are sufficient to overcome the previous objection and U.S.C. 112 rejection of these claims. Accordingly, this objection and rejection are withdrawn.

Response to Arguments

Applicant's arguments with respect to Claims 1-17 have been considered but are moot in view of the new ground(s) of rejection. The new grounds of rejection are necessitated by the amended versions of the claims.

On page 6, lines 26-28, the applicant has stated, "the Harris reference fails to disclose coupling a stereo control interface to the

original local hardwired stereo controls, such as OEM steering wheel mounted controls". The examiner acknowledges this statement, however, notes that the original claim language does not clearly specify that the local stereo controls are the controls originally mounted in the vehicle. The reference of Harris is mute on the point of whether or not the RDAT controller is intended to be the original or replacement controller installed in the vehicle. In view of the amended language in the claim, the reference of Kirson has been used in combination with the previously applied reference of Harris. Kirson teaches a method for incorporating secondary or peripheral electronic devices into the main electronics bus installed by the original equipment manufacturer. As part of the teachings, Kirson clearly illustrates an approach for enabling the original controls, such as those located on the steering wheel of a vehicle, to be used to control electronics added to the system. The reference of Opel has also been cited in this action as it pertains to the use of the same controller for multiple electronic components, and a few of the various embodiments, such as the one with the notched visor, suggest that the controller is the controller originally installed in the vehicle.

On page 7, lines 9-11, the applicant has stated, "a user generally interacts directly with the RDAT stereo controller to control the replacement stereo system instead of using originally mounted local stereo controls as disclosed by the applicant". The examiner generally agrees with this statement, though again, while the applicant discloses this arrangement, as mentioned above, the

"originally mounted" aspect of the controls is not readily distinct in the previously submitted claim language. As to the "original" or "replacement" status of the RDAT, as also mentioned above, Harris is mute. Paralleling the amended clarity of the claim language, the reference of Kirson has been included in the rejections to incorporate the OEM controls of a vehicle's electronics system with auxiliary electronic devices.

On page 7, lines 19-21, the applicant has stated, "Because Harris discloses controlling the replacement stereo exclusively with the RDAT stereo controller, Harris expressly teaches away from the Applicant's invention as defined by the Applicant in Claim 1". The examiner respectfully disagrees. The concept of "teaching away" cannot be interpreted where something is simply not disclosed. To "teach away", Harris would need to say or provide a basis for why the RDAT is the only type of physical I/O source that can be used with the system. In column 19, lines 38-40, Harris states that the illustrated embodiment the system "is controlled and adjusted using only the RDAT", but not that the only possible control input for the system is the RDAT controller. This statement in column 19 serves to illustrate the extent of possible controls for the RDAT, not limit the range of controllers for the system. The method and motivation for combining the reference of Kirson is provided in the corresponding claim rejections of this office action.

On page 7, lines 27-29, the applicant has stated, "since Harris's device is clearly different in function and scope to the Applicant's

claimed device and system, there can be no suggestion to modify the Harris structure with the teachings of Kadnier, Haubner, or any other cited prior art". The examiner acknowledges this statement, however, notes the responses listed above regarding the difference between the previous and current scope of the claims, as well as the newly combined reference of Kirson. The modification and motivation statements of the original office action have been reviewed to ensure that they are still appropriate regarding the amended claims and combination of references, and are herein repeated in this office action.

On page 8, lines 1-3, the applicant has stated, "the Examiner rejected Claim 9 in view of the pending application under U.S.C. 103(a) as being unpatentable over Harris in view of Kadnier, Haubner, and the applicant's admitted prior art". The examiner respectfully disagrees with this statement, noting that Claim 9 was previously rejected in view of Harris, applicant's admitted prior art, and Kadnier, not Haubner. In this group of claims, the reference of Haubner is first applied to Claim 13 because it teaches the concept that would have enabled wireless transmissions between the interface and the signal processors. This response also applies to the argument found in lines 8-9 of page 8 that reads, "Haubner '499 also uses a receiver for the reception of wirelessly transmitted information and fails to suggest or disclose the Applicant's claimed invention in Claim 9".

On page 8, lines 5-7, the applicant has stated, "Kadnier neither suggests nor discloses anything related to using originally hardwired local stereo controls mounted within a vehicle to control a replacement stereo receiver via an interface device as claimed by the Applicant in Claim 9". The examiner acknowledges this statement, however, notes that Kadnier was only combined in the rejections of the previous office action for receiving wireless signals and emitting corresponding control signals. It is the reference of Harris, which was originally applied because it teaches the controlling of a replacement stereo with local stereo controls. As detailed above, only the amended forms of the claim involve the limitation that the stereo controls are the controls originally mounted in the vehicle, and the additional reference of Kirson has been applied accordingly.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Opel (USPN 5555502) discloses a central display and control device for operating every initial as well as auxiliary electronic device included in a vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Graham whose telephone number is (703) 308-6729. The examiner can normally be reached on Monday-Friday (7:30-4:30), excluding alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen, can be reached at (703) 305-4386. The fax number for the organization where this application or proceeding is assigned is 703-872-9314 for regular communications, and 703-872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Andrew Graham
Examiner
A.U. 2697

AG
ag
July 31, 2003

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